METHOD AND APPARATUS FOR PROVIDING ACCESS CONTROL FOR A DECENTRALIZED OR EMERGENT MODEL ON A COMPUTER NETWORK

ABSTRACT OF THE DISCLOSURE

Access control for a model on a computer network comprises generating data objects and/or function objects, publishing references to the data objects and/or the function objects and subscribing to the data objects and/or the functions by creating relationships between the data objects and/or the function objects through referencing data objects within the function objects, thereby linking the data objects and/or the function objects, wherein networks of linked data objects and/or function objects emerge. The emergent linked data objects and/or function objects are make available for further linking with other data objects and/or function objects and messages are sent to referencing data objects and/or function objects when referenced data objects and/or referenced function objects change. The functions are solved when the messages are received, thereby causing at least one of the referenced data to be changed. The data objects and/or the function objects are stored in a distributed manner across multiple computing devices on a computer network. The emergent linked data objects and/or function objects are independently published to, and subscribed to, in a manner free of a globally predefined data object and/or function object definition, thereby generating the emergent model. Access control is provided by identifying a user of the emergent model and assigning appropriate read, write, execute and administrative permissions to the user on a per data objects and/or function objects basis, the permissions being used to limit access to a specific subset of the data objects and/or function objects.